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Mary and David Medd's schools

The dissolution of the classroom: architecture for education

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Synopsis

Today's architect is entrusted with giving spatial form to the new ideas on education. From the discussion between philosophy and pedagogy, we learn that it is impossible to develop methodologies without the content intended to be taught. Pedagogy should result of the research that teachers develop on their own teaching. That leads us to specific didactics, rules and methods which serve to learn a certain subject, thus to specific qualified spaces. Since the Modern Movement, design of schools has moved away from the additive configuration of flexible classrooms towards an addition of dissimilar places that students can use for different purposes, depending on the discipline they are learning. The best example of this approach is the work of Mary and David Medd, in post-war England, which serves as a case study. In their built-in variety we find no classrooms, but a single learning unit formed by spaces qualified for different uses.

Key words: Medd, Architecture & Building Branch, Learning spaces, Post-war schools.

1. Introduction: education and architecture. What? Why? How?

“A sense of space comes from breaking down frameworks; from going further, deeper, higher, beyond the imaginable, the manageable, the known, the familiar” (Hertzberger, 2008, p.67). What may be expected of the space that constitutes a school and what conditions can be achieved within the domain of architecture? Today’s architect is entrusted with giving spatial form to the new ideas on education.

In order to answer this question, the research focuses on British post-war schools, due to a twofold explanation: the innovations introduced in school typologies and the extensive number of documents that allow to verify the results of the experience. Firstly, the theoretical framework is presented. Subsequently, it is applied to the field of construction through a comparative analysis of typologies from the Modern Movement onwards. Finally, the case-study, Mary and David Medd’s schools, is analysed.



Figure 1. “Le mur de la mort”. Les Maternelles. L’ Unité d’habitation de Marseille. Le Corbusier.
Fondation Le Corbusier. L1-11-33-001) ©FLC-ADAGP

2. Pedagogy or philosophy: specific didactics

In order to build the new ideas that architecture should take into account when it comes to learning spaces, we should attend to the discussion between pedagogy and philosophy. According to Fernández Liria, philosophy is based on the powerful pedagogical spring of knowledge for the love of knowledge, while pedagogy seeks psychological, playful or emotional incentives to get students interested in knowledge (2017, p. 316). “It’s as if there’s no way to learn anything for your own intrinsic interest, so you always have to enable a kind of

bait to bite the hook” (Liria, 2017, p. 320). Hence, pedagogy focuses on learning methodologies, which are conveyed to future teachers by experts who teach how to teach.

However, authors like Walter Benjamin have pointed the fundamental sameness of form and content¹. From his ideas, it would be impossible to develop methodologies without the content that is intended to be taught. Pedagogy should result, as proposed by Lawrence Stenhouse², of the systematic research that teachers develop on their own teaching. The pedagogues must be the teachers themselves, because they are immersed in the context where the act of teaching takes place and they don't separate their way of teaching from the content to be conveyed (Liria, 2017, p. 313).



Figure 2. Montessori School in Delft. 1968.

Lüchinger, A. (1987). *Herman Hertzberger 1959-86, Bauten und Projekte/ Buildings and Projects/ Bâtiments et projets*. (Arch-Edition, Ed.). Den Haag.

This is where specific didactics arise: rules and methods which serve to learn a certain subject. We must recognize that architectural design cannot be taught in the same way as differential equations. Therefore, they should not be explained in the same space.

3. Didactics in architecture: schools without classrooms

There are many architectural experiences that have addressed the problem of learning spaces, from the German Hans Scharoun³ to the extensive school building of the Dutch Herman Hertzberger⁴. Since the Second World War, the design of schools has moved away from the additive configuration of flexible classrooms towards a configuration of dissimilar places that students can use for different purposes, depending on the discipline they are learning.

¹ In Berlin Childhood around 1900, Walter Benjamin explains how he tested this idea (Benjamin, 2010, pp. 226-227)

² Lawrence Stenhouse (1926-1982), British pedagogue who promoted the active role of teachers in curricular research.

³ Darmstad School (1955)

⁴ Montessori School in Delft (1960) or Apollo Schools in Amsterdam (1980). In his book, *Space and Learning*, Hertzberger explains the spatial articulation in the design of schools

The use is determined by the users themselves, who in certain active methodologies, such as the Montessori, move around the building, facing work according to their own interests.

Architecture for learning spaces, from the Modern Movement onwards, has not evolved towards the construction of a more homogeneous space, but, on the contrary, towards the qualification of different places, resulting in a heterogeneous space that the student travels in its whole. In short, the classrooms have ceased to function as space-for-everything, in an application of specific didactics to architecture. There are no classrooms or methodologies that serve everything: “beware of false neutrality, beware of the glove that fits all hands and therefore becomes no hand” (van Eyck, 2008, p. 341).

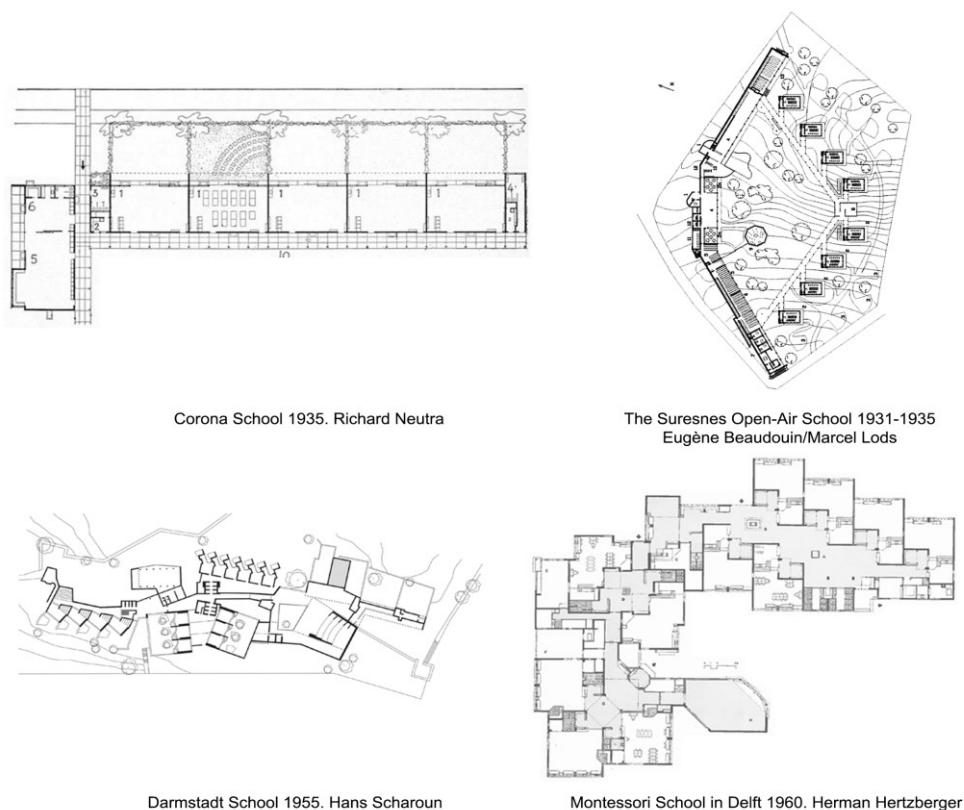


Figure 3. Evolution of school typologies.

1. Corona School 1935: http://etsavega.net/dibex/Neutra_Emerson-e.htm
2. The Suresnes Open-Air School 1931-1935. Eugène Beaudouin/Marcel Lods. <http://www.architectureofearlychildhood.com/2011/05/open-air-schools-in-europe.html>
3. Darmstadt School 1955. Hans Scharoun. Sentieri, C. y Verdejo, E. (2017). Las escuelas de Hans Scharoun versus la escuela finlandesa en Saunalahti [Plano].
4. Montessori School in Delft 1960. Herman Hertzberger. Lüchinger, A. (1987). Herman Hertzberger 1959-86, Bauten und Projekte/ Buildings and Projects/ Bâtiments et projects. (Arch-Edition, Ed.). Den Haag.

Thus, a school ceases to be a building formed by classrooms to become a large set of places. It is the student, not the teacher, who goes through a series of rooms that meet the specific demands of each discipline of knowledge. That is exactly what happens in the schools by Mary and David Medd.

4. Mary and David Medd, a case study

After World War II, a series of anonymous documents, known as the Building Bulletins, described the design and management process of UK schools. Mary and David Medd were the architects responsible for the construction of what were called Development Projects, public schools built by the Ministry of Education from a collective exchange, on education and architecture, among professionals from various disciplines. The pedagogical system was developed at the same time as the educational spaces.

The Medd introduced in their language a term known as built-in variety to describe how to approach the architectural solution. This strategy moved away from the concept of the classroom and sought the creation of spaces (planning ingredients), different in size and form within a global set, that allowed the development of activities of diverse nature. The architects believed that the variety within the school would break with the homogeneity, typical of schools formed by serialized classrooms, and would oblige users to interact and build their own learning space.

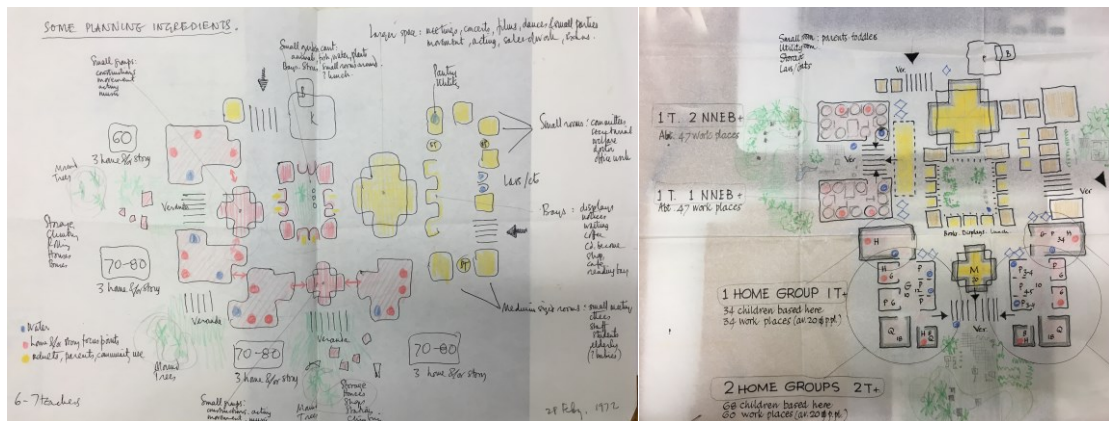


Figure 4. Mary Medd's sketches.

Medd, M. (1971). David & Mary Medd Collection, ME/E/18/5, Institute of Education, Londres.

This conception of space by parts encourages the articulation of uses that, while remaining with different spaces, form part of a closed unit. It is a composition, as described by Anton Capitel (Capitel, 2009, p. 64), typical of British domestic architecture. This concept can be studied in Finmere Primary School (1959-59), a rural school in the county of Oxfordshire, which subdivides the school into two groups (infant and junior) formed by spaces of different sizes and with different conditions. Some places are defined as alcoves with facilities and services such as a stove, a sink, a bench, pieces of furniture for small groups, etc. Other spaces are workshops, reading rooms, a library and a hall as a common space shared by all.

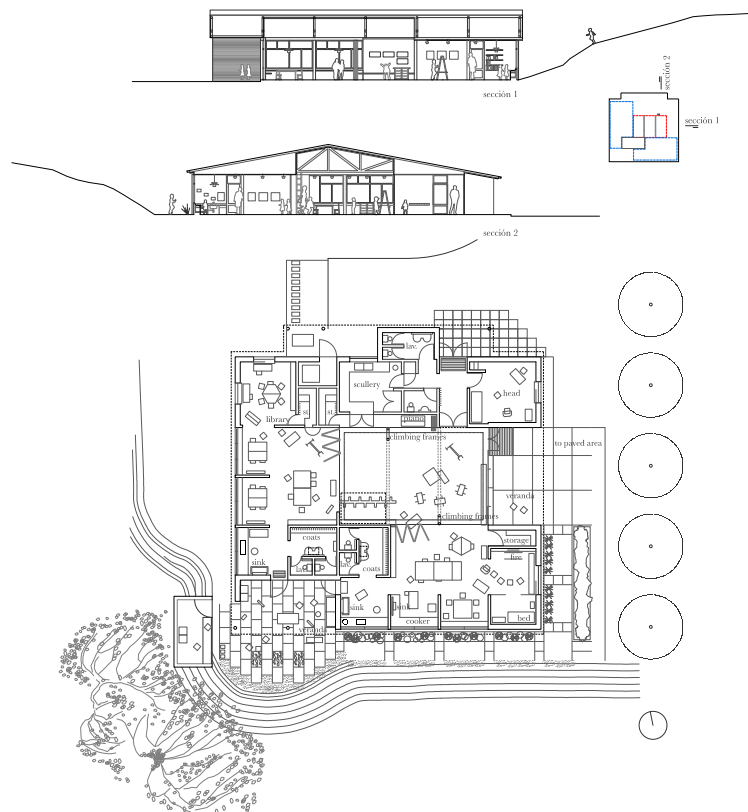


Figure 5. Finmere Primary School (1958-59). Redrawn plans and sections by authors.

The same principles could be found in other projects such as Woodside Junior School or Eveline Lowe Primary School. In all of them, the traditional classroom concept is broken and replaced by a big single learning space.

5. Conclusions

The schools built by David and Mary Medd during the 20th century show that the dissolution of the classroom could be a response to the educational problems of the present. When approached from a comparative analysis with the examples mentioned previously, according to structural principles, Medd's proposals differ in walking away from the division of students in closed groups shut in separate classrooms. The comparison enlightens the spatial characteristics of the Development Projects and their innovative principles.

In its built-in variety, against the concept of serialized classrooms, we find a variety of spaces qualified for different uses. It will be the student himself who moves to the place that best suits the activity he will be carrying out. This participation induces the imagination, so the student will take an active role, deciding on what, where, when and how he does his work. Conversely, they present features, from the architectural point of view, that favour the application of active pedagogical methodologies.



Figure 6. Bay-window in Finmere. Bay-window in Finmere Primary School.
David & Mary Medd Collection, Institute of Education, London. ME_Z_5_2_150_3252

Figure 7. A single learning space. Finmere Primary School.
David & Mary Medd Collection, Institute of Education, London. ME_Z_5_2_150_3242

The spatial innovation of the case study shows how architecture can extend the limits of education, and vice versa. In addition, it underlines the importance of a collaboration of professionals from different backgrounds, since it will only be possible to design suitable, specific places for specific taught contents, as long as an interdisciplinary work is fostered.

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Biography

Paula Lacomba Montes. Graduated in architecture after studies in the School of Architecture of Valencia and the Technische Universiteit Eindhoven (The Netherlands). In 2014, she registered as a doctoral student in the Department of Architectural Design and was awarded a scholarship (from Ministerio de Educación, Cultura y Deporte) to develop her PhD thesis and teach Architectural Design. Her research focuses on primary learning spaces built within an interdisciplinary experience developed in Great Britain after the Second World War. She took part in the International Congresses "LC2015", "EGA 2018", and has written articles in scientific journals such as Zarch and Revista 180. She has realized a scientific stay in the Institute of Education, University College London and during 2018 she has carried out a research stay in the Faculty of Education, University of Cambridge, UK..

Alejandro Campos Uribe. Graduated in architecture after studies in the School of Architecture of Valencia and the Technische Universiteit Eindhoven (The Netherlands). In 2014, he registered as a doctoral student in the Department of Architectural Design and was awarded a scholarship (from Conselleria d'Educació, Investigació, Cultura i Esport) to develop his PhD thesis and teach Architectural Design. His research focuses on the three houses designed and inhabited by the Dutch architect Aldo van Eyck, as a source for his design strategies. He took part in the International Congresses "LC2015", "EGA 2018", and has written articles in scientific journals such as Zarch, rita_ or Revista180. He has been awarded the Extraordinary Honor Prize in 2017..